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TS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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157,253,635

08/04/99

ARLITT

M

10981718-1

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TM02/1010

EXAMINER

ART UNIT	PAPER NUMBER
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2153

DATE MAILED:

10/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SM

Office Action Summary

Application No.

09/368,635

Applicant(s)

ARLITT ET AL.

Examiner

Isaac M Woo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 9, line 10, should the term or number "master data service system 40 ", read, "master data service system 30?". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inohara et al (U.S. Patent No. 6,256,747, hereinafter, "Inohara"), in view of DeSimone et al (U.S. Patent No. 5,787,470, hereinafter, "DeSimone").

In considering claims 1 and 8, Inohara discloses that in a data access network system that includes a content server (13, 13' and 13'', external server) coupled to a plurality of proxy servers (10, 10' and 10'', server) via an interconnect network, a system of maintaining content

consistency between the content and proxy servers, as taught by Inohara, see (FIG. 1 and col. 5, lines 30-54), the system of Inohara discloses that a subscription manager (101, cache management section, col. 6, lines 37-45) in the content server that specifies all of the proxy servers (108, cache directory) that are subscribed to a content file stored in the content server, see (FIG. 1; FIG. 2 and col. 7, lines 24-31). Inohara does not explicitly express that the consistency manager that notifies all of the subscribed proxy servers that cache the content file to discard the cached content file from those proxy servers when the content file is updated in the content server. However, DeSimone teaches that a cache (401) sends neighbor cache (402) a messages (403) containing information about a set ULRs. When cache (402) receives that messages, it updates the state-information it has accumulated on its neighbor cache (401), see (FIG. 4, col. 5, lines 49-62). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the subscription manager specifies the all of the proxy servers, as taught by Inohara, and the consistency manager notifies all of the proxy server when the content file is updated, as taught by DeSimone. One of ordinary skill in the art would have been motivated to combine DeSimone with the teaching of Inohara. Since in the web cache content consistency system in the network access environment, each cache server (either content server or proxy server) has the list of cache server to synchronize the contents of caches with others and in order to synchronize the content of server, each server notifies the updated contents to other servers which are specified by the server's list.

In considering claims 2 and 9, Inohara discloses that the subscription manager (101, cache management section, col. 6, lines 37-45) generates a subscription list (108, cache

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directory) that specifies all of the subscribed proxy servers (10, 10, '10'', other proxy servers) that cache the content file when the subscription manager is notified by each of the proxy servers that it has cached the content file, see (FIG.1; FIG. 2 and col. 7, lines 24-31).

In considering claims 3 and 10, DeSimone discloses that a proxy server notifies the subscription manager that it has cached the content file via an HTTP GET request with a SUB (Subscription) header (205) when the proxy server decide that the content file should be subscribed, see (FIG. 2 and col. 4, lines 21-24).

In considering claims 4 and 11, Inohara discloses that if the proxy server (104, cache evaluation part in the cache management section, 101, col. 15, lines 46-48) decides (col. 15, lines 39-44) that the content file is not popular file, then that proxy server does not notify the subscription manager that it has cached the content file, see (FIG. 1 and col. 15, lines 48-53).

In considering claims 5 and 12, DeSimone discloses that the consistency manager notifies (204) each of the subscribed proxy servers via a DWS INV message when a content file has changed, see (FIG. 2 and col. 4, lines 6-13).

In considering claims 6 and 13, DeSimone discloses that the consistency manager also sends the updated content file (206) to each of the proxy servers via an HTTP PUT request with a DWS SUB header, see (FIG.2 and col. 4, lines 24-26).

In considering claim 7, DeSimone discloses that the consistency manager notifies (403) all of the proxy servers specified by the subscription manager to discard the cached contents file from the proxy servers when the content file is updated or deleted in the content server within a predetermined time interval, see (FIG. 2 and col. 5, lines 49-62).

In considering claim 15, the combined teaching of Inohara and DeSimone disclose that a subscription manager (101, cache management section, col. 6, lines 37-45) in the content server that specifies all of the proxy servers (108, cache directory) that are subscribed to a content file stored in the content server, as taught by Inohara, as disclosed in claim 1 and 8, see (FIG. 1; FIG. 2 and col. 7, lines 24-31). In addition to, Inohara also discloses that the server status table (109, col. 7, line 32) maintains the status of proxy servers, see (FIG. 1 and FIG. 2; and col. 7, lines 32-44). The notification step is performed when the content file has changed in the content server, as taught by DeSimone that a cache (401) sends neighbor cache (402) a messages (403) containing information about a set ULRs. When cache (402) receives that messages, it updates the state-information it has accumulated on its neighbor cache (401), see (FIG. 4, col. 5, lines 49-62), as disclosed in claim 1 and 8.

Conclusion

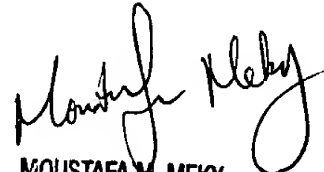
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M Woo whose telephone number is (703) 305-0081. The examiner can normally be reached on 8:00-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on (703)305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7201 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Isaac Woo
October 3, 2001



MOUSTAFA M. MEKY
PRIMARY EXAMINER